

Applicant : David J. Kinning et al.  
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Attorney's Docket No.: 13183-001001 / 54545US002

### REMARKS

Claims 1-15, 18-20, 26-28, 31-35 and 38 are pending in this application. Claim 4 has been cancelled. Claim 38 has been amended to correct inadvertent and unintentional redundancy. Claim 1 has been amended to clarify that the composition is a pressure sensitive adhesive and that the polymer does not include any silicone. Support for these amendments can be found, for example, in the Examples section of the specification, where silicone-free compositions are described and exhibit characteristics of a pressure sensitive adhesive. No new matter has been added by this amendment.

### *Rejections Under 35 U.S.C. §112*

Claims 9 and 38 have been rejected under 35 U.S.C. §112, as containing subject matter not described in the specification in such a way as to reasonably convey to one skilled in the art that the inventors, at the time the application was filed, had possession of the claimed invention.

The Examiner reasons that because Example 1 does not yield the recited peel adhesion value greater than about 10.0 N/dm, then the specification is inadequate. Applicants respectfully disagree. It is not a requisite for §112 paragraph 1 that a claim is exemplified in each example in an application. It is, however, necessary that the claim have sufficient support from the specification, such as by the teaching of at least one example. Applicants assert that claims 9 and 38, both of which are embodiment of independent claim 1, are clearly described in the specification as well as in numerous examples as shown in the summary of results in Table 2 (page 30 of the specification). The limitation that the peel adhesion value be greater than about 10.0 N/dm (or 20.0 N/dm, in the case of claim 9) is just one performance property of the inventive adhesives. Thus, although there are examples with peel adhesion values that fall lower than 10.0 N/dm, this teaching does not render claims 9 and 38 non-enabled. Accordingly, a skilled artisan can simply follow the recipes provided in the Examples and achieve the poly-urea based polymer presently claimed in claims 9 and 38. Applicants respectfully request that this rejection be withdrawn.

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Claims 1-15, 18-20, 26-28, 31-35 and 38 have been rejected under 35 U.S.C. §112, second paragraph as being indefinite.

Claim 1 has been amended to clarify that the composition is silicone-free. Support for this amendment can be found in the examples, where the compositions are made from a polyurea-based polymer having no silicone added – see for example, Examples 4 thru 9. As now claimed, the invention reflects Applicants' discovery that pressure sensitive adhesives can be made from non-silicone based polyurea polymers. This led to the opportunity in eliminating the need to for a tackifier, an ingredient generally required for adhesive compositions having silicone. With the entry of this amendment, the basis for the Examiner's rejection is no longer appropriate; therefore Applicants respectfully request that this rejection be withdrawn.

The Examiner alleges that Claim 4 "improperly broadens the scope of claim 1." Claim 4 has now been cancelled, therefore this rejection is moot.

#### *§102 &/or §103 Rejections*

Claims 1-15, 19, 20, 26-28, 31, 34 and 38 have been rejected under 35 U.S.C. §102(b) or in the alternative, §103(a) over EP 0 380 236 or U.S. Patent No. 5,214,119 or 5,461,134 to Leir et al. (These references are part of a family of applications/patents; therefore, for convenience, they will be referred to collectively herein as the "Leir references")

The Leir references relate to a block copolymer composition with repeating units of polysiloxane and urea segments. The copolymer is prepared by copolymerizing diaminiopolysiloxanes with diisocyanates. Leir does teach that polymeric diamines and polymeric glycols can be copolymerized with polysiloxane diamines, etc., and that the copolymeric segments can be 5% to 95% of the copolymer formulation.

The instantly claimed invention is a composition that is silicone free. No polysiloxanes segments exist within the polymer of the pressure sensitive adhesive. Thus, the composition is clearly different than those taught in the Leir references, which contain polysiloxanes. Furthermore, Applicants assert that a skilled artisan, at the time the invention was made, would not have found it obvious to prepare a pressure sensitive adhesive without such polysiloxanes and a significant amount of tackifier. Siloxane or silicone-based polymers have been known and

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are generally relied on to provide the desirable properties required by a pressure sensitive adhesive, particularly when the polymer is combined with a tackifier, typically at a 1:1 ratio (tackifier:polysiloxane-containing polymer). It was not until Applicant's invention, that a pressure sensitive adhesive was achieved without the use of silicone. There is no suggestion by the Leir references that would lead or motivate a skilled artisan to replace the polysiloxane polymers with silicone-free polymers. Therefore, absent the present teaching, one skilled in the art would have had no motivation nor expectation of success in achieving a pressure sensitive adhesive from a silicone-free polyurea polymer. Applicants respectfully request that these rejections be withdrawn.

Claims 1-15, 19, 20, 26-28, 31-34 and 38 have been rejected under 35 U.S.C. §102(b) over WO 96/35458.

Claims 1-15, 18-20, 31-35 and 38 have been rejected under 35 U.S.C. §103(a) as obvious over WO 96/35458 in view of WO 98/13135 or U.S. Patent No. 6,224,949 to Wright et al. As noted in a prior response, Applicants believe the Examiner, in citing WO 98/13135, actually intended WO 99/42536 and will therefore be treated as such (hereinafter referred to as the Wright et al. references).

Similar to the Leir references, WO '458 also teaches a composition having silicone polyureas. As now recited in newly amended claim 1, the composition comprises polyurea polymers that are silicone-free. Withdrawal of this rejection is respectfully requested.

The mere addition of the Wright et al. references to WO '458 still does not fill gaps left by WO '458 and therefore does not sum up to a combined teaching that achieves the pressure sensitive adhesive composition as instantly claimed. The Wright et al. references describe a free radical polymerization method that can be used to make release coatings, adhesive coatings, and hard coatings. The coatings contain polyorganosiloxane polyureas segments. Thus, all the references clearly teach the use of silicone-based polyurea polymers. Accordingly, there is no teaching or suggestion in any of the references that would inform a skilled artisan to modify the composition by replacing the silicone polyurea polymers with silicone-free polyurea polymers. Applicants request that this rejection be withdrawn.

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Claims 1-3, 9-15, 19, 20, 26, 31, 32, 34 and 38 have been rejected under 35 U.S.C. §102(b) or in the alternative, 35 U.S.C. §103(a) over U.S. Patent No. 5,047,272 to Hassel et al or U.S. Patent No. 5,049,427 to Starzewski et al.

Hassel et al relates to transparent polymers that includes a core layer having a high content of hydroxyl groups, and tack-free adhesive layers made from thermoplastic polyurethane-polyureas. The adhesives are therefore useful as laminating adhesives -- adhesive that require heat and/or pressure to make layers adhere. Laminating adhesives are typically not tacky at room temperature. As now amended, the claimed invention is a pressure sensitive adhesive (PSA) composition. PSAs are known to adhere to substrates with no more than finger pressure and are tacky at room temperature. Thus, the adhesive of Hassel et al is a different composition than that of the presently claimed invention.

Similarly, Starzewski does not fall within the class of materials generally referred to as PSAs. Starzewski et al relates to hot melt adhesives that can form a bond when subjected to high temperature and pressure. The hot melt adhesive is used to laminate polarizers. Applicants claimed invention is a PSA which behaves differently than a hot melt adhesive, particularly at room temperature. Therefore the Starzewski et al composition is a different adhesive than the pressure sensitive adhesive presently claimed.

Applicants assert that it would not have been obvious to one skilled in the art, at the time of the invention, to make a PSA using the polymers and formulations provided in Hassel et al or Starzewski et al. There is no teaching or suggestion in either of the references to adjust the components and performance properties to achieve a PSA. Hassel et al and Starzewski et al in fact, teach away from a PSA, as they suggest the development of non-tacky (at room temperature) compositions and the use of heat and pressure to initiate adhesion. Withdrawal of this rejection is respectfully requested.

The claims are now in condition for allowance. Early notice to that effect is earnestly solicited. The Examiner is invited to contact the undersigned if it would assist in expediently bringing the application to allowance.

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Respectfully submitted,

Date: \_\_\_\_\_

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